

WHAT IS CLAIMED IS

1. A speech processing apparatus for enhancing formant components of speech comprising:

a calculating function unit which calculates a distance between adjacent orders of linear spectrum pairs of a speech signal,

an adjusting function unit which adjusts the linear spectrum pairs so that a distance between linear spectrum pairs of adjacent orders closer in distance become closer, and

an outputting function unit which combines and outputs a speech signal based on the adjusted linear spectrum pairs.

2. A speech processing apparatus as set forth in claim 1, where the adjusting function unit is provided with a weighting function unit which weights adjusting amounts of the linear spectrum pairs in accordance with the frequencies of the linear spectrum pairs.

3. A speech processing apparatus as set forth in claim 1, where the adjusting function unit is provided with a restricting function unit which restricts the orders or the frequency range of the linear spectrum pairs for adjustment.

4. A speech processing apparatus as set forth in claim 1, further comprising:

a band-elimination filter which removes a specific frequency component of an enhanced speech signal synthesized based on the adjusted linear spectrum pairs,

a band-pass filter which passes said specific frequency component of the speech signal before enhancement, and

a combining and outputting function unit which combines and outputs the output signals of the band-elimination filter and band-pass filter.

5. A mobile communication terminal comprising:

a converting function unit which converts a wireless frequency signal to a baseband signal,

an extracting function unit which decodes speech parameters from speech encoding parameters of the baseband signal to extract linear spectrum pairs and sound source parameters,

a calculating function unit which calculates a distance between adjacent orders of extracted linear spectral parameters,

an adjusting function unit which adjusts the linear spectrum pairs so that the distance between the linear spectrum pairs of adjacent orders closer in distance become closer, and

a combining and outputting function unit which combines and outputs a speech signal based on the adjusted linear spectrum pairs and sound source parameters.

6. A mobile communication terminal as set forth in claim 5, where the adjusting function unit is provided with a weighting function unit which weights adjusting amounts of linear spectrum pairs in accordance with the frequencies of the linear spectrum pairs.

7. A mobile communication terminal as set forth in claim 5, where the adjusting function unit is provided with a restricting function unit which restricts the orders or frequency range of the linear spectrum pairs for adjustment.

8. A mobile communication terminal as set forth in claim 5, further comprising:

a band-elimination filter which removes a specific frequency component of an enhanced speech signal synthesized based on the adjusted linear spectrum pairs,

a band-pass filter which passes said specific frequency component of the speech signal before enhancement, and

a combining and outputting function unit which combines and outputs output signals of the band-elimination filter and band-pass filter.